

Application Serial No.: 10/694,762

Further to the Request for Reconsideration filed on December 29, 2004,
and in response to the Office Action dated September 29, 2004

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) ~~A shock~~ An impact absorber for vehicles, the ~~shock~~ impact absorber comprising:

a housing having an impact receiving member with at least one hollow formed therein, formed of a rigid material, and configured to be fixed to a bone structural member of vehicles, said impact receiving member being configured to plastically deform upon impact; and

a ~~shock-energy~~ impact-energy absorbing member disposed in the hollow of the housing ~~at least~~, and formed of a super plastic polymer material exhibiting a tensile breaking elongation of 200% or more, a yield strength of 20 MPa or more with respect to a predetermined strain and a tensile elastic modulus of 400 MPa or more,

wherein the ~~shock-energy~~ impact-energy absorbing member has a surface ~~at least~~, the surface facing ~~a shock~~ an impact input direction and disposed in a manner contacting closely with an inner surface of the ~~housing~~ impact receiving member, and

wherein the ~~shock-energy~~ impact-energy absorbing member is pre-compressed in a ~~shock~~ the impact input direction within the housing.

2. (Currently Amended) The ~~shock~~ impact absorber set forth in claim 1, wherein a part or the entirety of the housing is made of the bone structural member.

3. (Currently Amended) The ~~shock~~ impact absorber set forth in claim 1, wherein the super plastic polymer material is produced by mixing flakes of polyethylene terephthalate with resin and rubber and reacting them chemically.

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4-5. (Canceled)

6. (Currently Amended) The ~~sheek impact~~ absorber set forth in claim 1, wherein the housing has a thickness of 2 mm or less.

7. (Currently Amended) The ~~sheek impact~~ absorber set forth in claim 1, wherein the super plastic polymer material exhibits a tensile breaking elongation of 250% or more.

8. (Currently Amended) The ~~sheek impact~~ absorber set forth in claim 1, wherein the super plastic polymer material exhibits a yield strength of 25 MPa or more with respect to a predetermined strain.

9. (Currently Amended) The ~~sheek impact~~ absorber set forth in claim 1, wherein the super plastic polymer material exhibits a tensile elastic modulus of 500 MPa or more.

10. (Currently Amended) The ~~sheek impact~~ absorber set forth in claim 1, wherein the super plastic polymer material absorbs ~~sheek impact~~ energies in an amount of at least 2.5 times of an amount of ~~sheek impact~~ energies absorbed by polyurethane foam.

11. (New) The impact absorber set forth in claim 1, wherein said impact receiving member is a crush box.

12. (New) The impact absorber set forth in claim 1, wherein said impact receiving member includes a generally cylindrical portion having a stepwise increase in diameter from a first end thereof to a second end thereof.

13. (New) The impact absorber set forth in claim 12, wherein said first end has a bumper stay attached thereto, and said second end is a ring-shaped flange.

14. (New) The impact absorber set forth in claim 1, wherein said impact receiving member is a cylinder-shaped housing configured to be fastened coaxially outside of an

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impact beam.

15. (New) The impact absorber set forth in claim 1, wherein said impact receiving member has a protrusion with a U-shaped cross-sectional shape, wherein said impact absorbing member has a U-shaped cross-sectional shape, and wherein said impact absorbing member is nested within said protrusion.

16. (New) The impact absorber set forth in claim 1, wherein said impact-energy absorbing member is configured to deform plastically upon impact.